b

Name: HW87 - Pythagorean part 2 - find the side

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Geometry, Period

Due Date: Thu, 22 Jan 2015

**Geometry**

**Homework**



**Find the missing leg. Failure to show work on all problems or use complete sentences will result in a LaSalle.**For radicals that are not perfect squares, write answers in simplified radical form (ex:

… not ). You may still want to find the approximation to decide if your answer is reasonable.

*Hmmmm… that means I can round!*

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| 1) In the example below, explain each step in words. (In step 5, include whether or not the answer needs to be simplified further and why.)  (A)  (B)  (C)  (D)  (E) | 2) |
| 3)    *Rounding again!* | 4)    *No rounding clues… I better simplify* |
| 5) A shipping dock has a mobile ramp that is used to help load and unload cargo from trucks. The ramp is 125 inches long and has a base that is 120 inches long. What is the height *h* of the ramp? | 6) Find the missing interior side length represented by *x*. |
| 7) Find the area of the triangle below. Round to the nearest hundredth. | 8) Find the missing side length. |
| 9) A rectangular field shown below is 60 feet wide and 80 feet long. Jaylin and Joyce are at point A. Jaylin walks to point D by walking along the edge of the field through point B. Joyce walks to point D by walking diagonally across the field. About how many meters more does Jaylin walk than Joyce?  **A B**  **C D** | 10) |

***Exploration & Review***

You should approach each problem as an exploration. Problem-solving requires persistence as much as it requires ingenuity. When you get stuck, or solve a problem incorrectly, back up and start over. Keep in mind that you’re probably not the only one who is stuck, and that may even include your teacher. **If you have taken the time to think about a problem, you should bring to class a written record of your efforts, not just a blank space in your notebook**. The methods that you use to solve a problem, the corrections that you make in your approach, the means by which you test the validity of your solutions, and your ability to communicate ideas are sometimes even more important than getting the correct answer.

Solve all of the problems on a piece of paper ***STAPLED TO YOUR HOMEWORK.*** If you are stuck and cannot answer a question, write at least three complete sentences about the problem and what you DO know. Use at least one of the sentence starters below:

1. Even though I am stuck, I do know… and I think I should… because…
2. I am stuck because I do not know what \_\_\_\_\_\_\_\_\_\_\_\_\_ means. I think it means… so I tried…
3. I got \_\_\_\_\_\_\_\_\_ as an answer by doing… , but I think it is wrong because…

***Remember that you can always use old notes, a dictionary, math textbook, and/or look up topics online!***

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| 1) What is the equation of the line perpendicular to x = 4 and passes through the point (10, 3)? |
| 2) If the coordinates of a square that is inscribed inside a circle, meaning each vertex of the square lies on the circumference of the circle, are (-3,6), (5,6), (-3,-2), and (5,-2). What is the area of the circle? |
| 3) What point is the solution to the following three lines? *(Extra challenge! Can you solve this multiple ways? Prove it!)*  2x + y = 4  y = 4x + 10  y = 6 |